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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
LU, FRANK WEI MIN	
ART UNIT	PAPER NUMBER
1634	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/661,729	MCWILLIAMS ET AL.	
	Examiner	Art Unit	
	Frank W Lu	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) *8-17 and 25-39* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 18-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's response to the office action filed on April 11, 2005 has been entered. The claims pending in this application are claims 1-39 wherein claims 8-17 and 25-39 have been withdrawn due to restriction requirement. Rejection and/or objection not reiterated from the previous office action are hereby withdrawn in view of the amendment filed on April 11, 2005.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Lockhart *et al.*, (US Patent No. 6,524,800 B2, filed on July 6, 2001).

Regarding claim 1, since Lockhart *et al.*, teach to prepare a RNA sample from tissue samples such as blood using an acid guanidinium-phenol-chloroform extraction method (see columns 11 and 12) and the process of prepare a RNA sample must include liquefying the tissue samples, Lockhart *et al.*, disclose liquefying a complex biological construct comprising genetic molecules (ie., tissue samples) to form a solution as recited in claim 1. Since Lockhart *et al.*,

teach a method for massive parallel gene expression monitoring comprising: (a) providing a pool of target nucleic acids comprising RNA transcript(s) of one or more target gene(s); (b) hybridizing the nucleic acid sample to a high density array of probes; and (c) detecting the hybridized nucleic acids and calculating a relative and/or absolute expression (transcription, RNA processing or degradation) level (see column 11, third and fourth paragraphs), Lockhart *et al.*, disclose transferring said solution (ie., the RNA sample in a solution) to a microarray and determining said expression of said gene (ie., the expression of a RNA transcript in a pool of target nucleic acids comprising RNA transcripts) as recited in claim 1.

Regarding claim 18, since Lockhart *et al.*, teach to prepare a RNA sample from tissue samples using an acid guanidinium-phenol-chloroform extraction method (see columns 11 and 12) and the process of prepare RNA sample must include liquefying the tissue samples, Lockhart *et al.*, disclose liquefying a complex biological construct comprising genetic molecules (ie., the tissue samples) to form a solution having complete and uncontaminated genetic molecules (ie., the RNA sample) as recited in claim 18. Since Lockhart *et al.*, teach a method for massive parallel gene expression monitoring comprising: (a) providing a pool of target nucleic acids comprising RNA transcript(s) of one or more target gene(s); (b) hybridizing the nucleic acid sample to a high density array of probes; and (c) detecting the hybridized nucleic acids and calculating a relative and/or absolute expression (transcription, RNA processing or degradation) level (see column 11, third and fourth paragraphs), Lockhart *et al.*, disclose transferring said solution (ie., the RNA sample in a solution) to a microarray and determining expression of said gene (ie., the expression of a RNA transcript in a pool of target nucleic acids comprising RNA transcripts) as recited in claim 18.

Therefore, Lockhart *et al.*, teach all limitations recited in claims 1 and 18.

Response to Arguments

In page 14 of applicant's remarks, applicant argues that "[F]irst, as recognized by the Examiner, Lockhart *et al.* does not disclose a complex biological construct or a gross anatomical structure of an animal comprising more than one type of tissue. As described in paragraph 23 of the specification of the present application, a 'complex biological construct' is 'any portion of an animal having more than one tissue type. The complex biological construct may comprise an entire limb of animal or other gross anatomical structure such as appendages, organs, collection of organs, or organ systems. The complex biological construct may include hair, bone, blood, blood vessels, muscles, connective tissue, cartilage, nerve, bone marrow, epithelium, and adipose tissues'. Second, Lockhart *et al* does not teach a method of liquefying a complex biological construct comprising more than one tissue type in order that the cytoplasm of the cell be broken and the cell contents released. Third, Locket *et al* does not teach a method of analyzing gene expression by first liquefying different tissue, particularly tissue from a single anatomical structure. Indeed, Lockhart *et al* teaches away from the subject invention. At Columns 11 beginning line 33 through Column 12, line 55, Lockhart *et al* teaches that the sample is a homogenate of cells or tissues or other biological samples, and that 'preferably such sample is a total RNA preparation of a biological sample.' Col. 11, ls. 33 through 62. Furthermore, the examples taught by Lockhart are single human tumor cell lines, not multiple cell lines".

These arguments have been fully considered but they are not persuasive toward the withdrawal of the rejection. First, although RNA samples taught by Lockhart *et al.*, are isolated from a homogenate of cells or tissues or other biological samples, the claims do not limit " a

complex biological construct" as any portion of an animal having more than one tissue type. Note that paragraph 23 of the specification of the present application only describes that "[A] complex biological construct as used herein may be any portion of an animal having more than one tissue type" and the phrase "may be" indicates that a complex biological construct can be something else that is different from any portion of an animal having more than one tissue type. Second, the claims do not require liquefying a complex biological construct comprising more than one tissue type and analyzing gene expression by liquefying different tissues as suggested by applicant.

4. Claims 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Sambrook *et al.,* (Molecular Cloning: A laboratory Manual, second edition, 7.18-7.22, 1989).

Regarding claims 20 and 21, since Sambrook *et al.,* teach to mix 5 volume of guanidinium thiocyanate homogenization buffer with a fragment of tissue and homogenize the cell lysates with a grinder or homogenizer (see 7.19), Sambrook *et al.,* disclose placing a complex biological construct comprising genetic molecules (ie., the fragment of tissue) to form a solution into a chamber (ie., a container with mixture of guanidinium thiocyanate and a fragment of tissue) and liquefying said complex biological construct comprising genetic molecules in said chamber wherein a solution is formed as recited in claim 20 and further comprising the step of inserting a component (ie., a grinder or homogenizer) into said chamber wherein said component ruptures cells of said complex biological construct as recited in claim 21. Since Sambrook *et al.,* teach to transfer supernatant of a mixture of homogenization after centrifugation into a fresh tube and isolate RNA by CsCl gradient (see 7.20-7.22), Sambrook *et al.,* disclose removing said

solution from said chamber (ie., a container with mixture of guanidinium thiocyanate and a fragment of tissue) and purifying said solution and extracting and isolating genetic molecules as recited in claim 20.

Therefore, Sambrook *et al.,* teach all limitations recited in claims 20 and 21.

Response to Arguments

In page 15 of applicant's remarks, applicant argues that: (1) "[S]ambrook *et al.* does not disclose the use of a complex biological construct. As discussed above, a 'complex biological construct' of the subject invention is any portion of an animal having more than one tissue type. The complex biological construct may comprise an entire limb of animal or other gross anatomical structure such as appendages, organs, collection of organs, or organ systems. The complex biological construct may include, but are not limited to, hair, bone, blood, blood vessels, muscles, connective tissue, cartilage, nerve, bone marrow, epithelium, and adipose tissues"; (2) "[S]ambrook *et al* does not teach or describe a step of liquefying a complex biological construct and transferring the solution to a microarray for analysis"; and (3) "Sambrook *et al* teaches away from the present invention because chaotropic agents are recommended by Sambrook *et al* to increase yield and quality of RNA".

These arguments have been fully considered but they are not persuasive toward the withdrawal of the rejection. First, since paragraph 23 of the specification of the present application only describes that "[A] complex biological construct as used herein may be any portion of an animal having more than one tissue type" and the phrase "may be" indicates that a complex biological construct can be something else that is different from any portion of an animal having more than one tissue type, claim 20 does not limit "a complex biological

construct" as any portion of an animal having more than one tissue type" and Sambrook *et al.*, do teach or describe a step of liquefying a complex biological construct (see above rejection). Second, claim 20 does not require transferring the solution to a microarray for analysis as suggested by applicant. Third, applicant does not explain why Sambrook *et al.*, teaches away from the present invention and chaotropic agents taught by Sambrook *et al.*, is not a limitation of claims 20 and 21.

5. Claims 3-7 and 20-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Lockhart *et al.*, (July 6, 2001) as evidence by Sambrook *et al.*, (Molecular Cloning: A laboratory Manual, second edition, 7.18-7.22, 1989).

Regarding claims 3, 4, 20, and 21, since Lockhart *et al.*, teach to prepare a RNA sample from tissue samples using an acid guanidinium-phenol-chloroform extraction method published by Sambrook *et al.*, (see columns 11 and 12) and Sambrook *et al.*, teach to mix 5 volume of guanidinium thiocyanate homogenization buffer with a fragment of tissue and homogenize the cell lysates with a grinder or homogenizer (see 7.19), Lockhart *et al.*, disclose placing a complex biological construct comprising genetic molecules (ie., the tissue samples) into a chamber (ie., a container with mixture of guanidinium thiocyanate and tissue samples) and liquefying said complex biological construct comprising genetic molecules in said chamber wherein a solution is formed as recited in claims 3 and 20 and further comprising the step of inserting a component (i.e., a grinder or homogenizer) into said chamber wherein said component ruptures cells of said complex biological construct as recited in claims 4 and 21. Since Sambrook *et al.*, teach to transfer supernatant of a mixture of homogenization after centrifugation into a fresh tube and isolate RNA by CsCl gradient (see 7.20-7.22), Sambrook *et al.*, disclose removing said solution

from said chamber (ie., a container with mixture of guanidinium thiocyanate and tissue sample) and purifying said solution and extracting and isolating genetic molecules as recited in claims 3 and 20. Since Lockhart *et al.*, teach a method for massive parallel gene expression monitoring comprising: (a) providing a pool of target nucleic acids comprising RNA transcript(s) of one or more target gene(s); (b) hybridizing the nucleic acid sample to a high density array of probes; and (c) detecting the hybridized nucleic acids and calculating a relative and/or absolute expression (transcription, RNA processing or degradation) level (see column 11, third and fourth paragraphs), Lockhart *et al.*, disclose determining expression of said gene as recited in claim 3.

Regarding claims 5 and 22, since Lockhart *et al.*, teach to prepare a high density assay having a plurality of oligonucleotides for gene expression monitoring (see columns 14-18), Lockhart *et al.*, disclose preparing gene expression analysis as recited in claims 5 and 22.

Regarding claims 6 and 23, since Lockhart *et al.*, teach that compound 52 and flavipiridol increase gene expression of certain genes (see Figure 3A and column 2), Lockhart *et al.*, disclose said gene expression analysis includes an analysis of gene function (ie., certain genes response to treatment of compound 52 and flavipiridol) as recited in claims 6 and 23.

Regarding claims 7 and 24, since the high density assay taught by Lockhart *et al.*, has a plurality of oligonucleotides (see column 15, last paragraph) and total RNA used for hybridization taught by Lockhart *et al.*, has thousands of different mRNAs encoding thousands of corresponding known and unknown genes, Lockhart *et al.*, teach that genetic molecules (ie., a plurality of oligonucleotides) are placed in a microarray for matching known and unknown genetic molecules (ie., the thousands of different mRNAs in total RNA used for hybridization taught by Lockhart *et al.*,) as recited in claims 7 and 24.

Response to Arguments

In page 16 of applicant's remarks, applicant argues that "The court in *In re Saunders*, 444 F.2d 599, 602-03, 170 USPQ 213 (CCPA 1971) found that only one reference can be used to show the elements of the claimed invention. MPEP 2131.01 states that an extra reference can be used to show that the reference provides an enabled disclosure, explain the meaning of a term or to show that a characteristic not disclosed in the reference is inherent. The court in *In re Baxter Travenol Labs*, 952 F.2d 388, 390 (Fed. Cir. 1991) found that the extra reference can be used to explain but not expand the meaning of the reference. Sambrook *et al.* is used to expand the teaching of Lockhart *et al.* because missing from Lockhart's disclosure are the steps of removing and purifying/extracting/isolating the genetic molecules. But, even with the additional disclosure from Sambrook, Lockhart does not anticipate the claimed of the subject invention because Lockhart does not disclose a liquefied complex biological construct. Therefore, this rejection is improper because Lockhart does not anticipate the present invention, and to interpret Lockhart *et al,* an allegedly anticipating reference, by incorporating the specific teachings of a second reference (Sambrook *et al*) is impermissible. Lockhart *et al* fails to teach liquefying a complex biological construct as defined in the specification of the subject application to prepare a gene expression analysis and Sambrook *et al* cannot be used to expand the teaching of Lockhart et al. to include purification steps not taught".

These arguments have been fully considered but they are not persuasive toward the withdrawal of the rejection. First, Lockhart *et al.*, do teach the steps of purifying and isolating the genetic molecules (ie., mRNA), which include removing and extracting steps (see column 12, lines 35-54) although they do not give a detailed description for these steps. Second, since

methods of isolating total RNA are well known to those of skill in the art, Lockhart *et al.*, do not give a detailed description for the steps of removing and purifying/extracting/isolating the genetic molecules. However, Lockhart *et al.*, specifically cite methods of isolating total RNA from Sambrook *et al.*, (Molecular Cloning: A laboratory Manual, second edition, Vols. 1-3,1989) (see column 12, lines 35-54), the prior art from Sambrook *et al.*, is not used to expand the teaching of Lockhart *et al.*, but is used to explain the meaning of the reference (ie., the steps of removing and purifying/extracting/isolating the genetic molecules (ie., mRNA)). Thus claims 3-7 and 20-24 can be properly rejected under 35 U.S.C. 102(e) as being anticipated by Lockhart *et al.*, (July 6, 2001) as evidence by Sambrook *et al.*. Third, since claims 3 and 20 do not limit " a complex biological construct" as any portion of an animal having more than one tissue type, and paragraph 23 of the specification of the present application only describes that "[A] complex biological construct as used herein may be any portion of an animal having more than one tissue type" and the phrase "may be" indicates that a complex biological construct can be something else that is different from any portion of an animal having more than one tissue type, Lockhart *et al.*, do teach liquefying a complex biological construct.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 2 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lockhart *et al.*, (July 6, 2001) as applied to claims 1 and 18 above, and further in view of Pittman *et al.*, (US 2003/0154032 A1, priority date: December 15, 2000).

The teachings of Lockhart *et al.*, have been summarized previously, *supra.*

Lockhart *et al.*, do not disclose that the complex biological construct is a gross anatomical structure of an animal comprising more than one type of tissue as recited in claims 2 and 19.

Pittman *et al.*, teach to isolate total RNA from mouse paws (see column 33, [0330]). Mouse paw is considered as a complex biological construct with a gross anatomical structure of an animal comprising more than one type of tissue.

Therefore, it would have been *prima facie* obvious to one having ordinary skill in the art at the time the invention was made to have performed the method recited in claims 2 and 19 wherein the complex biological construct is a gross anatomical structure of an animal comprising more than one type of tissue in view of the patents of Lockhart *et al.*, and Pittman *et al.*, One having ordinary skill in the art would have motivated to do because the simple replacement of

one kind of the complex biological construct (i.e., tissue samples taught by Lockhart *et al.,*) from another kind of the complex biological construct (i.e., mouse paws taught by Pittman *et al.,*) as a starting material during the process for performing the method recited in claims 2 and 19 would have been *prima facie* obvious to one having ordinary skill in the art at the time the invention was made.

Furthermore, the motivation to combine arises from the expectation that the prior art elements will perform their expected functions to achieve their expected results when combined for their common known purpose. Support for making the obviousness rejection comes from the M.P.E.P. at 2144.06, 2144.07 and 2144.09.

Also note that there is no invention involved in combining old elements is such a manner that these elements perform in combination the same function as set forth in the prior art without giving unobvious or unexpected results. *In re Rose* 220 F.2d. 459, 105 USPQ 237 (CCPA 1955).

Response to Arguments

In page 17, first paragraph bridging to page 18, second paragraph of applicant's remarks, applicant argues that: (1) "[A]s discussed above, Lockhart *et al.* does not disclose liquefying a complex biological construct. Like Lockhart *et al.,* Pittman *et al.* does not teach liquefying a complex biological construct. Moreover, while Pitman *et al* teach isolation of RNA from mouse paw, Pitman et al teach using frozen tissue, grinding it into a powder and adding liquid nitrogen. See Example 2. Pitman does not teach liquefying the paw containing the genetic molecules and analyzing the expression of one or more genes"; (2)"there is no motivation for one skilled in the art to combine the teachings of Pitman *et al* with the teaching of Lockhart *et al* and arrive at the invention of the subject invention as presently claimed. The prior art must suggest the

modification, and no suggestion is taught by either reference. Even though the teachings of Lockhart et al and Pittman *et al* may appear modifiable in manner the will yield the invention, it is only through hindsight motivation would these references be combined to teach the present invention"; (3) "[P]ittman *et al.* teaches away from liquefying a complex biological construct to analyze gene expression. In paragraphs [0090] and [0091], Pittman *et al.* states 'When obtaining the cells, it is preferable to obtain a sample continuing predominantly cells of the desired type, e.g., a sampled of cells in which at least about 50%, preferably at least about 60%, even more preferably at least about 70%, 80% and even more preferably, at least 90% of the cells are of the desired type. A higher percentage of cells of the desired type is preferable, since such a sample is more likely to provide clear gene expression data. It is also possible to obtain a cell sample from a subject, and then to enrich it for a desired cell type . . . . Where the desired cells are in a solid tissue, particular cells can be dissected out, e.g., by microdissection'. "; and (4) "Both Pitman *et al* and Lockhart *et al* teach the failure by others to yield sufficient amount of RNA from a sample unless that sample is first sufficiently purified and separated. However, applicants have resolved this long felt need by unexpectedly liquefying a complex biological construct to provide a sufficient amount of RNA for the gene expression analysis".

These arguments have been fully considered but they are not persuasive toward the withdrawal of the rejection. First, Lockhart *et al.* do disclose liquefying a complex biological construct (see above Response to Arguments to the rejection under 35 U.S. C 102). Second, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into

account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Third, although the references from Lockhart *et al.*, and Pitman *et al.*, do not provide a motivation, the motivation in the rejection is based on M.P.E.P. at 2144.06, 2144.07 and 2144.09. Specifically, the complex biological construct taught by Lockhart *et al.*, and the complex biological construct Pitman *et al.*, are functional equivalent starting materials and can be used for the same purpose so that they are exchangeable. Fourth, Pittman *et al.*, do not teaches away from liquefying a complex biological construct to analyze gene expression because Pittman *et al.*, teach to purify RNA from frozen mouse paws. Furthermore, the reference from Pittman *et al.*, teach to purify RNA from different sources (see Example 2 in pages 33 and 34) and the paragraphs [0090] and [0091] only describes one of embodiments of Pittman *et al.*. Fifth, the claims does not require producing RNA with a high yield.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. No claim is allowed.

10. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CAR § 1.6(d)). The CM Fax Center number is either (571)273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Lu, Ph.D., whose telephone number is (571)272-0746. The examiner can normally be reached on Monday-Friday from 9 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached on (571)272-0745.

Any inquiry of a general nature or relating to the status of this application should be directed to the Chemical Matrix receptionist whose telephone number is (703) 308-0196.

Frank Lu
PSA
June 16, 2005

FRANK LU
PATENT EXAMINER